AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.-10. Canceled.

11. (New) An article having a joint and a shape memory foam fluid seal comprising:

a base foam material having an open-cell structure; and

a thermoplastic substance impregnated and distributed in said base foam material and having a melting point lower than that of said base foam material, the cells of said base foam material at their surface having a hardened layer of the thermoplastic substance and in contact with the base foam material,

wherein said shape memory foam material is a composite material obtained by compressing said base foam material and said thermoplastic substance, and

wherein a compressed state of said shape memory foam material is retained in a room temperature by said hardened product of said thermoplastic substance existing at least in the cell surface layer thereof, and

wherein the foam material is mounted in the joint in a compressed state in an article to be sealed and is released from its compressed state and is expanded by heating and softening said hardened product of said thermoplastic substance ,

said shape memory foam material is prepared by a process of:

(1) impregnating said base foam material with a thermoplastic substance,

(2) heating at a temperature of 80 to 200°C and compressing the impregnated base foam material at a temperature the same as or higher than a softening temperature of said thermoplastic substance as well as less than a softening temperature of said base foam material,

(3) cooling said impregnated base foam material of step (2) while retaining it in the compressed state, and

(4) releasing the pressure after cooling.

12. (New) The article according to claim 11, wherein a volume of said base foam material is recovered in 70% or more of an uncompressed state thereof by heating.

13. (New) The article according to claim 11, wherein a thickness of said base foam material is retained in a half or less of an uncompressed state thereof in a room temperature.

14. (New) The article according to claim 11, wherein said base foam material is made of one of a thermosetting resin and a cross-linked rubber.

15. (New) The article according to claim 11, wherein said base foam material is made of urethane.

16. (New) The article according to claim 11, wherein said base foam material in an uncompressed state has a water absorption coefficient of 0.2 g/cm^3 or more, and a bulk density of 100 kg/m^3 or less.

17. (New) The article according to claim 11, wherein said thermoplastic substance is a thermoplastic resin wherein at least one of a glass transition point, a melting point, and a softening temperature is less than 120°C.

18. (New)The article according to claim 17, wherein said thermoplastic resin contains at least one selected from the group consisting of an acrylate, a styrene, and a vinyl acetate as a monomer unit.

19. (New) A method of producing a shape memory foam material, comprising the steps of:

impregnating a base foam material in a thermoplastic substance;

heating and compressing said impregnated base foam material at a temperature the same as or higher than a softening temperature of said thermoplastic substance as well as less than a softening temperature of said base foam material;

cooling down said impregnated base foam material while retaining the compressed state; and

releasing the pressure after cooling.

20. (New) A soundproof cover mounted on an automobile engine, said soundproof cover comprising a shape memory foam material including:

a base foam material; and

a thermoplastic substance impregnated and distributed in the cells of said base foam material and having a melting point lower than that of said base foam material, the

cell of said base foam material at their surface having a hardened layer of said thermoplastic substance and in contact with said base foam material,

wherein said shape memory foam material is a composite material obtained by compressing said base foam material impregnated with said thermoplastic substance, and

wherein a compressed state of said shape memory foam material is retained in a room temperature by said hardened product of said thermoplastic substance existing at least in the cell surface layer thereof, and

wherein the soundproofing foam material in its compressed state is mounted on an automobile engine and is then heated and released by softening said hardened product of said thermoplastic substance,

said shape memory foam material is prepared by a process of:

(1) impregnating said base foam material with a thermoplastic substance,

(2) heating at a temperature of 80 to 200°C and compressing the impregnated base foam material at a temperature the same as or higher than a softening temperature of said thermoplastic substance as well as less than a softening temperature of said base foam material,

(3) cooling said impregnated base foam material of step (2) while retaining it in the compressed state, and

(4) releasing the pressure after cooling.